

### **REMARKS**

Responsive to the Office Action mailed August 5, 2009, Applicant provides the following. Claims 1, 11, 14 and 15 have been amended without adding any new matter. No claims have been added. As such, Sixteen (16) claims remain pending in the application: claims 1-16. Reconsideration of claims 1-16 in view of the amendments above and remarks below is respectfully requested.

By way of this amendment, Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues, it is respectfully requested that the Examiner telephone the undersigned at (858) 552-1311 so that such issues may be resolved as expeditiously as possible.

### **THE AMENDMENTS TO THE CLAIMS DO NOT RAISE ANY NEW ISSUES OR REQUIRE FURTHER SEARCHING**

In the above amendment Applicant has amended claims 1, 11, 14 and 15 to correct minor antecedent basis problems objected to by the Examiner. Applicants respectfully submit that the amendments do not raise any new issues or require any further searching and are only minor amendments to correct antecedent basis issues raised by the Examiner. Therefore, Applicant believes that the above amendment is proper under 37 C.F.R. 1.116 and should be entered.

If this response does not result in a Notice of Allowance or a new office action, Applicant hereby requests a timely Advisory Action.

### **Claim Rejections - 35 U.S.C. §112**

Claims 1-16 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim that which Applicant regards as the invention.

The Examiner has rejected claims 1, 11, 14 and 15 for reciting several terms that lack proper antecedent basis. Applicant has amended these claims to correct the antecedent basis issues pointed out by the Examiner. As such, Applicant respectfully submits that the rejection to claims 1, 11, 14 and 15 for lack of proper antecedent basis is overcome and should be withdrawn.

Furthermore, the Examiner states that the claim language in claims 1, 11, 14 and 15 is not clear. Specifically, with respect to claim 1, the Examiner states that the term “metric information” is not clearly defined and further asserts that for examination purposes the term can be interpreted to mean any type of information (Office Action, pgs. 2-3). Applicants submit that claim 1 specifically recites “said metric information representing processing metric of a part or whole of other information processing devices.” As such, claim 1 specifically defines that the metric information represents a processing metric. Furthermore, Applicant’s specification specifically states that metric information is information “that represents the type of processor, the number of processors, the capacity (processing speed) of individual processors, the type of executable program, the amount of memory, and other load-balanceable processing capacity (including information of whether load balancing is possible or not)” (Specification as Filed, pg. 11, lines 21-25). As stated in MPEP 2111 “the pending claims must be ‘given their broadest reasonable interpretation consistent with the specification.’” (Quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005)). Applicant submits that in light of what is recited in claim 1, and further consistent with the definition of metric information in the specification, it is clear that metric information represents information regarding the processing capabilities of the processing devices and accordingly the term “metric information” is clearly defined.

The Examiner has further presented similar rejections to claims 11, 14 and 15 with regard to the recited “metric information” recited in claim 11, and “processing metric” recited in claims 14 and 15 (Office Action, pgs. 3-4). Applicant submits that the recited language is clearly defined at least for the same reasons as discussed above with respect to claim 1.

Additionally, with regard to claim 1, the Examiner states that “it is not clearly indicated who sent ‘information processing request’” (Office Action, pg. 3). Applicant submits that the claim is directed at the “information processing system” and that therefore it is clear that the “information processing requested” is a request for information processing from the information processing system of claim 1. The information processing may be requested by various entities and to be processed at the information processing system. Therefore, Applicant

submits that who sent the “information processing request” is not relevant to the scope of the claim, and further that many different entities may request for information processing.

The Examiner has further presented similar rejections to claims 11, 14 and 15 (Office Action, pgs. 3-4). Applicant submits that the above arguments similarly apply to these claims.

Further, the Examiner states that “it is not clearly indicated how the comparing step is performed” in claim 1 (Office Action, pg. 3). Claim 1 specifically states “comparing the magnitude of the actual load measured by the load measurement means and the metric information stored in said metric information management means” to determine at least one available device “being capable of executing a part or whole of said information processing requested.” Therefore, the plain language of the claim indicates that the comparing is to compare the metric information and the actual load, and find an available device capable of executing a part or whole of the information processing requested. Therefore, it is clearly defined that the determination entails comparing the actual load of the information processing and the metric information of the other information processing devices to determine which device is “capable of executing a part or whole of said information processing requested.” As such, the comparing step of claim 1 is clearly defined.

The Examiner has further presented similar rejections to claims 11 and 14 (Office Action, pg. 3). Applicant submits that the recited language is clearly defined at least for the same reasons as discussed above with respect to claim 1.

Still further, regarding claim 1, the Examiner states that “it is not clearly indicated whether ‘task’ refers to ‘program execution’ or ‘information processing requested’” (Office Action, pg. 3). Applicant respectfully submits that claim 1 specifically recites “task corresponding to a part or whole of the information processing requested.” As such, Applicant submits that it is clearly indicated that the task refers to a part or whole of the information processing requested.

Furthermore, with respect to claim 14, the Examiner states “it is not clearly indicated whether ‘request’ refer to ‘processing request’ in lines 7-8” (Office Action, pg. 3). Applicant submits that the “processing request” recited in lines 7-8 refers generally to processing

requests received and that the “request” recited in lines 9-12 refers to a specific “request [] for information processing”. As such, the use of “a” in both instances clearly indicates that the two elements recited in claim 11 do not necessarily refer to the same request.

Accordingly, for the reasons discussed above, claims 1, 11, 14 and 15 are definite and particularly point out and distinctly claim the subject matter which Applicant regards as the invention as required under 35 U.S.C. § 112. As such, Applicant respectfully request that the rejection to these claims be withdrawn.

Furthermore, claims 2-10, 12-13 and 16 depend from independent claims 1, 11, 14 and 15 and are therefore also patentable under 35 U.S.C. § 112. As such, Applicant respectfully request that the rejection to these claims be withdrawn.

### **Claim Rejections - 35 U.S.C. §103**

I. Claims 1-8 and 16 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 6,484,204 (Rabinovich) in view of U.S. Patent No. 6,938,256 (Deng et al.). Applicants respectfully traverse this rejection.

To establish a prima facie case of obviousness ... the prior art references must teach or suggest all the claim limitations. In re Vaack, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j). Applicants respectfully submit that the above-cited combination does not teach or suggest all of the limitations of claims 1-8 and 16.

Specifically, amended claim 1 recites:

- a plurality of information processing devices each comprising program execution means;
- at least a first information processing device of the plurality of the information processing devices further comprising:
  - metric information management means for storing metric information in an updatable manner, said metric information representing processing metric of a part or whole of other information processing devices of the plurality of information processing devices excluding the first information processing device itself;
  - load measurement means for measuring an actual magnitude of a load of an information processing requested;
  - determination means for determining at least one available device by comparing the actual magnitude of the load measured by the load

measurement means and the metric information stored in said metric information management means, said at least one available device being capable of executing a part or whole of said information processing requested ; and

task assignment means for assigning a task corresponding to a part or whole of the information processing requested to the at least one available device determined by said determination means.

Rabinovich fails to describe or suggest at least “load measurement means for measuring an actual magnitude of a load of an information processing requested” as recited. In asserting that Rabinovich describes this limitation the Examiner cites to col. 6, line 67 – col. 7, line 20 of the reference (Office Action, pg. 5). As stated by the Examiner the cited portion discloses “determin[ing] the value of a request metric” wherein the request metric is “a historical measure of the request for the object that have been forwarded to the host that stores the replica of the requested object” (Office Action, pg. 5; Rabinovich, col. 6, line 67 – col. 7, line 5). Applicant submits this portion of Rabinovich fails to describe or suggest “load measurement means for measuring an actual magnitude of a load of an information processing requested.” In fact, it is believed that Rabinovich does not measure any information regarding the request, instead, the request metric refers to a measurement of “requests for the object that have been forwarded to the host” (col. 7, line 4). This is further apparent by the example provided in Rabinovich station that the “request metric is the number of requests for an object assigned to a host by request distributor” (col. 7, lines 12-13). Therefore, the request metric referred to by the Examiner refers to a measurement regarding the host, equated with the available device, rather than the requested object, equated with the information processing requested (see Office Action, pg. 5).

Furthermore, in Rabinovich, “the request distributor selects a host ... to respond to the request based upon the request metric and the distance metric of the host in relation to the request metric and distance metrics of the other [hosts] that also store replicas of the requested object (col. 7, lines 43-48). Therefore, the only measurements made are with respect to the hosts, and no determination is made with respect to the requested object, equated with the information processing requested (see Office Action, pg. 5).

Still further, Rabinovich also fails to describe or suggest “determination means for determining at least one available device by comparing the actual magnitude of the load

measured by the load measurement means and the metric information stored in said metric information management means” as recited in claim 1. That is, as recited above, the determination of the host in Rabinovich is based on comparing the request metric and the distance metric, which both refer to information regarding the host, “with request metric and distance metrics of the other [hosts] that also store replicas of the requested object” (col. 7, lines 43-47). Therefore, Rabinovich fails to describe or suggest comparing the actual magnitude of the load of an information processing requested, equated to the requested object, with the metric information of information processing devices, equated with the hosts.

Accordingly, for the reasons discussed above, Rabinovich fails to describe or suggest each limitation as recited in claim 1. Furthermore, Deng also fails to describe or suggest the limitations not disclosed by Rabinovich. Therefore, Applicant respectfully submits that the above-cited combination fails to render independent claim 1 obvious.

Claims 2-8 and 16 depend upon allowable independent claim 1, and as such are also allowable at least due to their dependence on claim 1.

Furthermore, with respect to claim 2, the proposed combination fails to describe or suggest each limitation as recited in claim 2. The Examiner submits that Rabinovich does not describe metric information management means and instead relies on Deng as disclosing this limitation (Office Action, pg. 5). However, as previously argued by Applicant in response to the previous Office Action mailed January 22, 2009, Deng also fails to describe or suggest a first list management means and a second list management means as recited. Claim 2 recites in part:

first list management means for acquiring first metric information representative of static processing metric of said other information processing devices to determine at least one or more available devices, and storing a first list in a predetermined memory area, said first list being such that the one or more available devices determined are listed; and

second management means for measuring second metric information representative of dynamic processing metric of the one or more available devices listed in said first list, creating a second list such that the second metric information measured is classified and listed per processing metric, sorting the available devices having the second metric information listed in the second list according to the task execution condition to determine at least one available device suitable for each task execution condition, and storing an index list, in which the determined at least one available device is listed, in a predetermined memory area;

Applicant respectfully submits that Deng fails to describe or suggest a first list management means and a second list management means as recited in claim 2. Specifically, in rejecting claim 2 the Examiner contends that Deng describes “collecting resource capability information of each server and ranks the available servers” (see Office Action, pg. 6 (citing Deng, col. 5, lines 38-40 and col. 6, lines 34-40). The cited portion of Deng describes:

“The VXT (100) ranks the available servers according to specific ranking criteria and servers' current running status in CPU availability, memory availability, storage connectivity, main proxy server connectivity, and peer server connectivity and generates a resource table (132) summarizing the resource capability metric (134) in a capability vector (136).” (Deng, col. 6, lines 34-40).

As such, Deng only describes measuring the resource capability metric 134 for all available servers and storing the information into a capability vector 136.

There is no discussion in the cited portion of Deng of a first list management means for measuring static capability information, equated with the metric information recited in claim 2, for the available servers, equated with the available devices recited in claim 2, and storing a list having one or more of the available servers, and a second list measurement means for measuring dynamic capability information for those devices in the first list, and further does not disclose a separate index list ranking the devices listed in the second list. Instead, Deng only describes a single list, i.e. capability vector 136. As such, Deng fails to describe or suggest each limitation as recited in claim 2. Accordingly the proposed combination fails to render claim 2 obvious for these additional reasons.

Claim 6 recites language similar to that of claim 2 with respect to a first list management means and a second list management means, and therefore, claim 6 is also not rendered obvious by the proposed combination of Rabinovich and Deng for the reasons discussed above with respect to claim 2.

II. Claims 9-15 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Rabinovich in view of Deng and further in view of U.S. Patent No. 6,009,455 (Doyle et al). Applicant respectfully traverses this rejection.

Applicants respectfully submit that the above-cited combination does not teach or suggest all of the limitations of amended independent claims 11, 14 and 15. The Examiner presumably contends that Rabinovich describes, “a load measurement means for measuring a magnitude of the load of an information processing requested” as recited in amended claim 11. Independent claims 14 and 15 recite similar language. However, as described above with respect to claim 1, Rabinovich and Deng both fail to describe or suggest measuring a magnitude of the load of an information processing request, equated with the requested object. Doyle also fails to describe or suggest this limitation. As such, the proposed combination fails to render independent claims 11, 14 and 15 obvious.

Furthermore, with respect to claim 11, neither of the references disclose “program execution means partitioned into a plurality of clusters.” The Examiner contends that Rabinovich discloses this limitation citing to col. 6, lines 11-20 and lines 37-40 (Office Action, pg. 9). However, neither this portion nor any other portion of Rabinovich describe this limitation. Instead, the cited portions simply recite a plurality of hosts 103, 104 and 105, connected to the network. As such, this is an additional reason that claim 11 is not rendered obvious by the combination of the above-cited references.

Claims 12 and 13 depend upon allowable independent claim 11. As such, the above cited references also fail to render claims 12 and 13 obvious at least due to their dependence on claim 11.

Claim 9 depends from allowable claim 1, and as such is also allowable at least due to its dependence upon independent claim 1.

Furthermore, with respect to claim 9, Rabinovich, Deng and Doyle fail to disclose “said program execution means is partitioned into a plurality of clusters ... an operating status of each cluster is provided to other information processing devices.” The Examiner contends that Rabinovich discloses this limitation citing to col. 6, lines 11-20 and lines 37-40 (Office Action, pg. 11). However, neither this portion nor any other portion of Rabinovich describe this limitation. Instead, the cited portions simply recite a plurality of hosts 103, 104 and 105, connected to the network. As such, this is an additional reason that claim 9 is not rendered obvious by the combination of the above-cited references.



**CONCLUSION**

Applicant submits that the above amendments and remarks place the pending claims in a condition for allowance. Therefore, a Notice of Allowance is respectfully requested.

Respectfully submitted,  
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